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LANDSCAPE RESEARCH (2013) 38
DOI: 10.1080/01426397.2012.746652

Planning rural landscapes: a participatory approach to analyse future scenarios in Monferrato Astigiano (Piedmont, Italy)

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Abstract

The future of rural landscapes in Europe is a subject of considerable debate between policy makers and researchers. This paper aims to analyse public awareness of social, economic, and political forces affecting future rural landscapes in an effort to support local planning policies implementing the European Landscape Convention in a rural landscape (Piedmont, Italy). Public consultation with two focus groups (Institutional Stakeholders and Civil Society Stakeholders) was set up to reveal personal perceptions. In a first part the main driving forces affecting local landscape transformations were identified and their likely effects were discussed with the participants. Participants' preferences regarding three alternative future scenarios were analysed in a second part. Results confirmed the complexity of a shared decision-making process in planning rural landscapes. Not only did the two groups differ in expectation, perception, and attitude, but also in their interpretation of the landscape scenarios.

Key words: focus groups, driving forces, stakeholders, decision making

Introduction

The World Commission on Environment and Development (WCDE) in 1987 proposed the most widely accepted definition of sustainable development as 'development [that] meets the needs of the present without compromising the ability of future generation to meet their own needs'. Subsequent consideration identified two key principles in the planning process for sustainable development to be employing a holistic approach and enlisting active participation from multiple stakeholders (Landorf, 2009). In fact, the literature recommended a trans-disciplinary method in which several scientific disciplines, such as ecology, economy, and social science work together with regional actors (Tress *et al,*. 2005; Duff *et al.*, 2009; Cullotta & Barbera, 2011). Specifically, the need to improve the relationship between landscape ecology, spatial development, and planning has been stressed (Opdam *et al.*, 2002).

For a rural landscape concept to be strictly committed to sustainable land management, group and social actor representation is important, above all, as an expression of the differences in viewing and interpreting the landscape reality, and for expressing aspirations and objectives that do not always coincide (Oliveira *et al.*, 2008). Several studies showed the gap between centrally defined strategies for rural landscapes and awareness and management practices at local level (Pinto-Correia *et al.*, 2006; Nowicki & Weeger, 2006; Pfefferkon & Černič Mali, 2008). The future of rural landscapes in Europe and in Italy is a subject of considerable debate among both policy makers and researchers. Following the European Landscape Convention (2000) recommendations concerning population aspirations and the need to take public perception into account in landscape planning, public consultation has recently become an increasingly important tool in the decision-making process. However, how the integration of the public visions should be carried out is not yet defined (Loupa Ramos, 2010).

When future rural landscape transformations are studied, the involvement of local stakeholders is a fundamental step (Fernández Muñoz & Mata Olmo, 2008). As Schneeberger *et al.* (2007) explained, actors, such as individuals, agencies, institutions, or boards are the decision-making and

mediating agents. The driving forces are the expression of these decisions or acts, such as laws and subsidies. This complexity of issues, to understand the influencing forces and their landscape consequences, begs the use of focus groups in which social, political, and economic trends are discussed and evaluated (Atwell *et al.*, 2011).

A second tool that allows visualization of future landscapes is historically-based landscape scenarios that provide options for future development (Palang *et al.*, 2000). Scenarios have long been used in research projects to anticipate the environmental and human effects of trade, agriculture, forestry, and land use policy including climate change and biodiversity loss. As Nassauer & Corry explained (2004), in landscape planning, the term 'scenario' refers to the different possible stories or alternative assumptions that underlie landscape change. The landcover pattern and functional consequences that may result from the scenario is referred to as a 'future'. For landscape scenarios, alternative futures are explicit, spatially-specific landcover patterns and representations that include maps, digital imaging simulations, and even drawings rather than only quantitative outcomes. This method has implications for policy that allows decision-makers and the broader public to literally "see" the alternatives.

The research project

Within this context, a two-year research project entitled 'Decision-making for rural landscape' was developed beginning in 2008. The goal was to address the decision-making process for rural landscape quality conservation and valuation. A multidisciplinar research group to analyse the agro-ecological, historical, economic, and social features of the cultural rural landscape was involved (Larcher *et al.*, 2011; Larcher, 2012). An expert-based approach was used to make real contribution to the future local planning and design model for sustainable development of the rural landscape. To this end, we will show the approach and results from the participatory parts of the project including analysis of the driving forces and future scenarios. This research might help determine if it is possible to transfer expert survey results on governance and decision making to a local setting to

achieve a shared design as defined by the European Landscape Convention, and the approaches required to do so. The method and results could then be used to inform other projects focused on understanding the will of a population and to address real needs in local programs and strategies for rural development.

The study area

A hilly vineyard agro-ecosystem was chosen as the study area. The area (Figure 1) is located in *Monferrato Astigiano* (MA) near the city of Asti (Piedmont, Northwest Italy) and has a population of 49870 inhabitants. In 2000, 7327 farms with a mean surface area of about 2.58 ha each were counted within a utilized agricultural area of about 18933 ha (ISTAT, 2000). While wine growing is the most important crop (7802 ha), MA contains several different agricultural patterns. The north is dominated by a non-specialized and fragmented farm pattern of cereals and vineyard; the centre is mainly composed of traditional and intensive wine growing, and the south is an agro-forest matrix where vineyards are relic elements among woodlands.

MA is a UNESCO candidate site for its unique rural landscape which is considered an important World Cultural Heritage (Gullino, 2010). According to UNESCO policies expressed by the 'Convention concerning the protection of the world cultural and natural heritage' (1972), a cultural site can be defined as a "place where the combination between human activities and nature have been made clear". Such a site should represent an Outstanding Universal Value from a historical, aesthetic, ethnological, or anthropological point of view. According to Stenseke (2009), for a cultural landscape nomination to become a UNESCO World Heritage Site, enhancing knowledge about the prerequisites for local participation in the planning and management of landscapes, and revealing critical aspects are priorities (Blandford, 2006).

During the last twenty years in MA, aging farmers and increased production costs have changed farm structure. Land use shifts and planning policies that encouraged settlement also altered the landscape pattern and spread fragmentation. These trends, coupled with recent development

guidelines and rural area renewable energy promotion, are gradually transforming the landscape. Therefore, MA must be deeply analysed, and then well managed to maintain its cultural heritage going forward.

Materials and Method

As said before, the paper explains the methods and results of the participatory part of the research project. Two one-day meetings were organized for focus groups to achieve two goals, each with two tasks. The first goal was to outline the main forces driving local landscape transformation and to discuss their impacts, while the second goal was to analyse three future landscape scenarios and to discuss participant preferences. Bijlsma *et al.* (2011) showed towards an empirical analysis of stakeholders many intersting aspects. The first is the strategic uncertainty referred to a lack of knowledge about how actors will anticipate and respond to each other's actions. The second is the institutional uncertainty referred to a lack of knowledge about formal competences, procedures, and conventions. For these reasons we decided to involve as stakeholders different types of actors belonging to various organizations, administrative levels, and networks, and hence being guided by different concepts, tasks, and opinions, and respecting different rules (van Noordwijk *et al.*, 2011; Mauchline *et al.*, 2012). Two small participant groups were formed, one of Institutional Stakeholders (local and regional policy makers and institutional representatives), and the other of Civil Society Stakeholders (members of local organizations and associations, residents and farmers). According to Breton Morris *et al.* (2011), each focus group separately followed the same steps in order not to be influenced each other. To ensure at least eight participants in each focus group, thirty-two people were invited to the debate. Half of them accepted the invitation.

The Institutional Stakeholders (IS) focus group included the following individuals:

- three mayors (municipalities of Antignano - north MA, Moasca - centre MA, Cassinasco - south MA);

- the president of an association of local municipalities (Comunità Montana Langa Astigiana Valle Bormida – south MA);
- two Province of Asti Authority officials (from agricultural and environmental sectors);
- one Piedmont Regional Authority official;
- one Superintendence of Cultural Heritage representative.

The Civil Society Stakeholders (CSS) focus group included the following individuals:

- two Rocchetta Palafea municipality (south MA) Culture and Tourism Office representatives;
- two Calosso municipality (centre MA) Culture and Tourism Office representatives;
- one representative from one of the most important farmers' unions (Coldiretti Piemonte);
- one representative from the area's biggest wine co-operative (Vinchio & Vaglio Serra);
- one representative from the 'Davide Lajolo' cultural association;
- one of the most important local landowners.

We considered the people involved to well represent all aspects of the local culture.

The methodology of the driving force and future scenario analyses had a shared basis, and identical steps were taken with each focus group. The participants introduced themselves to get to know one other better and provided a frame for better understanding the various perspectives (Patel *et al.*, 2007). For each focus group, they worked together during the open discussion and then individually during the score of scenarios. In order to avoid biased responses experts should also fulfil the condition of having neither present nor past political or administrative responsibility in the municipalities investigated, as well as not having any contamination and obvious personal relationship, we decided to guide the partecipatory procesess as experts and moderators (Loupa Ramos, 2010; Bijlsma *et al.*, 2011). Experts organized the two meetings, introduced the theme of scenarios by defining them as "viable futures" for the rural area studied and developed the possible landscape scenarios (Carvalho-Ribeiro *et al.*, 2010; Gerdien Prins *et al.*, 2011). Both meetings pursued the scheme of moderator explanation followed by question posed to participants for discussion detailed below (Table 1):

Part one

- moderators briefly explain the project and the transformation policies (STEP 1);
- question A: Which driving forces will change MA rural landscape in the next twenty years?
- participants discuss the driving forces proposed by experts, and select their own setof driving forces for MA rural landscape (STEP 2). After discussion, question B was formulated;
- question B: What effects will those driving forces have on MA rural landscape?
- participants discuss and define effects (STEP 3);
- question C: Which score do you assign to each driving force in terms of landscape impact? Use the scale from 1 (low importance) to 5 (high importance);
- participants discuss, classify, and define shared scores (STEP 4).

Part two

- moderators objectively explain the scenarios;
- question D: Which score do you assign to each landscape parameter? Use the scale from –3 (high negative effect) to +3 (high positive effect);
- individuals define scores (STEP 5).

During STEP 1, agriculture and rural development policies, as well as housing and urban planning policies, were identified as the most relevant policies in landscape modification. For agriculture and rural development analysis issues, we referred to EU Common Agricultural Policy and, in particular, to the Rural Development Programme (RDP) for Piedmont Region 2007-2013 (http://www.regione.piemonte.it/agri/psr2007_13/). Four main discussion themes arose after moderators posed the first question to participants: (i) new technologies and innovation, (ii) rural area quality of life, (iii) agri-environment measures, and (iv) agricultural income support policies.

Moderators briefly described each theme and indicated possible trends of each as follows.

i. New technologies and innovation. Farm modernization through the introduction of new technologies, products, and processes. Possible trends: 'hard' technologies and intensive agriculture *versus* 'soft' technologies and extensive agriculture.

ii. Rural area quality of life. EU measures to diversify the rural economy (agricultural and non-agricultural activities) and to provide basic services to the rural economy and population. Possible trends: farm land maintenance *versus* farm land abandonment.

iii. Agri-environment measures. EU measures to protect the environment and maintain the countyside such as: integrated farm management and organic agriculture, turf hilly orchards and vineyards,turn cereal crops into permanent grasslandintroduce and maintain landscape features (e.g. hedgerows and grass strips) preserve high-value habitats and their associated biodiversity). Possible trends: maintenance *versus* loss of slope hydro-geological stability and landscape features.

iv. Agricultural income support policy. Production effects of income support programs (coupled and decoupled policies). Possible trends: higher yields *versus* lower yields.

For housing and urban planning policies, the moderators identified four more themes: (v) demographic trends, (vi) estate trends, (vii) building heritage policies, and (viii) landscape and heritage planning.

Moderators briefly described each theme and indicated the possible trends of each as follows.

v. Demographic trends. Fundliving quality and increase private housing and new road infrastructure. Possible trends: movement from city to countryside (residential, infrastructure, and service demands) *versus* movement from countryside to city (depopulation and abandonment of existing buildings).

vi. Estate trends. Local housing policies. Possible trends: urban sprawl *versus* urban concentration.

vii. Building heritage policies. Regenerate the downtown and introduce specific rules for buildings and green areas (materials, architectural components, plant species, and so forth). Possible trends: restoration *versus* abandonment of existing building stocks.

viii. Landscape and heritage planning. New landscape planning and town planning programs for developing rural landscape and agriculture. Possible trends: guidelines and restrictive laws about rural and urban transformations *versus* no rules.

In STEP 2, participants discussed the themes, validated some of them and identified the most relevant driving forces, able to address the rural landscape changes. Finally, IS and CSS highlighted which driving forces might alter the local countryside over the next twenty years. Then, the group was asked to imagine the effect of such driving forces on the landscape. Afterward, (STEP 3) each participant wrote on individual cards what they believed to be the two primary possible effects caused by the previously-defined driving forces. Each participant explained and discussed their chosen effects with other participants. Focus group moderators collected the cards and immediately composed a placard that displayed the focus group defined driving forces with their potential effects.

During STEP 4, the focus group discussed placard contents (Figure 2). Finally, participants were asked to assign a 1-5 (low-high) value to each driving force that represented its importance to influence the landscape over the next twenty years. The assignation of the values was the result of a open discussion between participants and permitted to classify driving forces.

The second part of the focus group sessions was scenario evaluation to analyze the directional effects of the driving forces over time. According to the definition of the relevant driving forces (STEP 1) and the possible direction of their effects on the landscape (Antrop, 2006), three different landscape scenarios have been proposed: Intensive Wine-growing Agriculture, Multifunctional Agriculture, and Housing Sprawl (STEP 5). Scenarios were developed by experts, outside the session and were at first described by using photos collected in the studied area (Figure 3). These real images intended to be both representative of MA and sufficiently anonymous so that the precise location is not obvious at the first glance but identified as belonging to the landscape. They were used for showing to the participants that some landscape changes are already occurring in the studied area. Scenarios were described as followed:

- The first scenario, Intensive Wine-growing Agriculture, is linked to the economic trend of maximum production and profit. The rural agriculture focus is transformed to an industrialized agriculture. The most remunerative cultivations are introduced and production is intensified. All

potential surfaces are utilised, and accompanied by investment in and heavy use of mechanisation, new agricultural buildings, and new technologies. These elements produce a uniform landscape with vineyards on the slopes and cereals (in particular, maize) on the plains. Intensive wine growing causes woodland abandonment and increases field dimensions (Figure 3A).

- The second scenario, Multifunctional Agriculture, results from a sustainable and environmentally-friendly development path. Rural transformations lead to agricultural production diversification whereby products and services connect traditional activities with tourism. In this context, hedgerows between fields, beside roads, and along the managed water system are valued and characteristic features of the developing landscape. Woodlands are important components of slope management and biodiversity, as are typical fruit orchards (hazelnut). Cereal crops are re-sized in favour of permanent crops, and multifunctional agriculture gives regard to the environment and renewable energy production (Figure 3B).

- The third scenario, Housing Sprawl, is linked to immigrant and local population demographic trends that demand new housing rather than transformations directly related to agriculture. It consists mainly of new housing built on formerly-cultivated plots. The municipal infrastructure is reinforced and commercial and industrial activities are promoted and established. Farmers are not encouraged to modernize or proceed to multifunctional agriculture and sustainable development (Figure 3C).

Finally, participants evaluated the proposed scenarios. IS and CSS were shown the *status quo* and three different transformations of the same view using photo-montages (software Adobe Photoshop 7.0) (Figure 4). *Status quo* showed the current and real condition of a typical MA slope (Figure 4A). Agricultural land use and intensive farming system characterized the first scenario (Figure 4B), where new rural buildings were created too. Agricultural and forest land uses and extensive farming system characterized the second scenario (Figure 4C), where hedgerows, renewable energies and tourist facilities were created. Residential use characterized the third scenario (Figure 4D), where houses, designed green areas, roads and services were included.

With the aim to analyse stakeholders opinion about scenarios a number of landscape parameters were used:

- Exigency, defined as if and how much the scenario is necessary for humans;
- Desirability, defined as if and how much the scenario can be wanted;
- Likeliness, defined as if and how much the scenario can actually be realized;
- Visual impact, defined as if and how much the scenario can influence landscape aesthetic perception;
- Environmental impact, defined as if and how much the scenario can have environmental concequences;
- Local identity, defined as if and how much the scenario relates to historical and cultural heritage;
- Economic well-being, defined as if and how much the scenario provides benefits relative to costs and risks;
- Local development, defined as if and how much the scenario fulfills the needs of local development and healthfulness;
- Over-local impact, defined as if and how much the scenario consequences can socially extend beyond the local landscape.

The parameters were developed by experts and regarded especially the social, economical and environmental aspects in scenarios evaluation. Likeliness and diserability were also used for the development of 'exploratory landscape scenarios' in the formulation of landscape quality by Loupa Ramos (2010). Participants assigned individually a value to each item in each scenario. The evaluation scale was organized into negative effects (–3, –2 and –1), no effect (0) and positive effects (+1, +2 and +3), with -3 and +3 being the most negative and positive, respectively. According to Breton Morris *et al.* (2011), participants was asked to base their predictions of impacts on a timescale of 20 years. On completion of the individual scoring, average impact scores for each scenario were calculated and recorded.

Results

Driving forces

Tables 2 and 3 list the results for Institutional Stakeholders and Civil Society Stakeholders, respectively. A detailed analysis of the tables shows how the driving forces commonly believed to alter landscapes most (principally negatively) are those regarding urban and territorial policies. With regard to the agricultural sector, the most influential forces are European policies on farmer public support that determined, relative to the amount allocated and distributed, the permanence or the disappearance of agriculture lands. Specific results for several key driving forces are discussed below.

Both groups postulated renewable energy production would be the new technology likely to alter future landscapes. While the IS underscored the negative effects of these technologies on the visual landscape (increased use of solar panels), the CSS highlighted the positive aspects of these innovations on landscape agro-ecological properties (improved management of forest resources and animal manure).

The rural area quality of life was interpreted by both groups as "farmer well-being", measured by farm household incomes. In this respect, the current EU budget plan to support farm family incomes was not favourably viewed. Both groups maintained that payments related to these policies are not adequate to save marginal areas from agricultural abandonment. According to the IS, European support to farmer income and activity diversification may bring positive results to areas where agriculture is already profitable, thus reinforcing traditional cultivations so that farms can produce services and other products beyond their primary goods. Their opinion on rural economic policies and support diversification contrasts with the original European goal. In fact, these policies were conceived and promoted by the EU to favour marginal area development and reduce rich and disadvantaged area gaps.

The IS highlighted the remarkable increase in hazel crops as opposed to wine growing as one of the factors currently affecting the visual landscape. According to focus group participants, this cultivation variation is due to its lower labour input cost. Hobby farmers especially enjoy the income diversification and reduced production costs that come from hazel cropping.

Also, the IS did not believe that the EU agri-environmental plans would result in significant landscape effects; on the contrary, they judged rural municipality rules would be more influential. The CSS, on the other hand, attached significant importance to European agri-environmental policies, and emphasized their positive effects on vine landscapes.

The reactions within the CSS group were striking on the subject of substitution of crop farming with woodlands. Some saw woodland spread as a cultural landscape loss and visual landscape deterioration, whilst others perceived woodland presence as an index of landscape complexity, and consequently, as a potential visual and agro-ecological landscape improvement.

CSS also stressed the following driving forces and their effects on the agricultural sector: absence of generational turnover (abandonment of farming); recent boom in the gourmet foods industry; and quality of culture (preservation of local production and traditional landscape). Generally, both groups recognized that current demographic factors and territorial/urban policies would lead to significant deterioration of landscape quality in the coming years. The effects of these driving forces were thought to lead to lost agricultural/forest lands and increased urban sprawl with new residential, industrial, and commercial structures on areas previously cultivated. These effects are mainly linked to the loss of cultural values and community knowledge (Bijlsma *et al.*, 2011). As previously described, MA is a UNESCO candidate site as cultural heritage for its unique rural landscape. The presence of traditional crops and local products, the permanence of historical land uses and agricultural practices, and the presence of architectures related to agricultural activity, are considered by UNESCO to be the most important conditions to become a World Heritage Site. Future landscape changes could transform the studied area also compromising the permanence of these conditions.

The demand for housing outside towns/villages arrives mainly from the new generation of local residents. These younger residents prefer to move from traditional settlements into villas or detached housing in the high-quality countryside areas, such as the hill ridges. CSS also focused on the recent influx of foreign immigrants who relocate for farmhand work. They believe that this trend causes gradual local knowledge loss by severing the passage of information from generation to generation.

It is a common and shared opinion that the discrepancy in the valuation of building *versus* agricultural lands represents a strong incentive for building speculation and obstructs agricultural land consolidation due to land owner economic expectations from building development. For both groups, local territorial policies on new building developments will cause a similar effect increased (rather than limited) loss of agricultural land. This is due to the lack of agreement and common urban policy between municipalities which is aimed at concentrating productive activity (industrial and commercial warehouses) in just a few collective areas. The IS consider urban policies on the restoration of existing building stock and old towns as a tool to fight the loss of agricultural land. For the CSS, these policies are of little or no importance.

Landscape scenarios

The three future landscape scenarios (Intensive Wine-growing Agriculture, Multifunctional Agriculture, and Housing Sprawl) were assessed by asking focus group participants to rate each previously-defined evaluation parameter. The participants could award points on a scale of –3 (high negative effect) to +3 (high positive effect). The points indicated if, and to what degree, the proposed scenarios were necessary, desirable, and likely, as well as the effect direction (positive or negative) on such aspects as visual landscape, environment, and economic wealth of the local residents. Table 4 reports the average ratings that the focus groups assigned to each parameter.

If a focus group participant assigned the maximum value to each of the nine parameters, his/her rating of the scenario would total +27. On the contrary, if they awarded minimum points, the total

rating would be –27. Thus, the plus/minus sign and total point value per line in Table 4 indicate the overall opinion of the scenario in question (Figure 5), assuming all items are of equal importance. Both groups reacted negatively to the Housing Sprawl scenario. Intensive Wine-growing Agriculture also received criticism but to a lesser degree. The most popular scenario was Multifunctional Agriculture, particularly amongst the stakeholder group.

Figure 6 (IS) and Figure 7 (CSS) show an analysis of the average ratings assigned to each evaluation. CSS, unlike the IS, viewed the Intensive Agriculture scenario as unnecessary and scarcely advisable; they considered Multifunctional Agriculture as the most realistic/likely. Both groups evaluated the effects of Intensive Agriculture and Housing Sprawl as negative for visual, cultural, and environmental landscape quality. IS not only held the Housing Sprawl scenario to be the most likely, but also they recognised in it some positive aspects in terms of economic well-being and over-local impact.

Discussion

The study goal was to analyse person awareness of the driving forces affecting rural landscapes and their effects in the next twenty years as a means to support future local planning policies. Public consultation using focus groups seemed to be a capable method by which to assess personal perceptions.

Experts as focus moderators objectively guided the process and interpreted the results. Experts also selected and identified three scenarios and discussed their effects with the participants. In agreement with van Berkel & Verburg (2011) intensive agriculture, off-farm employment, rural tourism and nature conservation can be considered as rural development options in Europe.

The use of scenarios appeared to foster visualisation of landscape transformations, especially for participants not accustomed to thinking about the landscape too. Furthermore, as explained by Soliva *et al.* (2008), scientific research that considers the views of local stakeholders can potentially

give a voice to those directly affected by political and administrative decisions, and whose daily actions shape and maintain the landscape.

Our study involved both IS and CSS who showed some different expectations, perceptions, and attitudes in the discussions. In spite of those differences, there were issues common to both. Housing and urban planning policies, as well as estate trends, are commonly recognized as the major driving forces influencing landscape modification. Both groups assigned to them higher values compared with lower values assigned to technological innovation, agricultural policies and demographic trends. The result for these driving forces is the loss of agricultural land in favour of new housing, commercial and industrial structures, considered negative by all participants.

Both groups suggested that the EU policies supporting farmers' income and activities diversification in rural areas are potentially the main driving forces in terms of landscape impact. Some doubts were raised about the real effectiveness of these policies in terms of containing farm land abandonment in marginal areas.

Besides, different views were hold within the groups about the rural development policies effects on ecological and visual consequences (positive vs negative).

The two groups disagreed also about the effects of the EU measures explicitly directed towards maintaining landscape features (eg. agri-environment measures). The CSS assigned some positive effects on wine-growing landscape. The IS underlined that the territorial spread of the effects could be a limit for driving landscape transformations. Thus, they didn’t even list them as a driving force.

Both groups highlighted the negative effects of marginal area abandonment and the use (abuse) of cultivated land for industrial or residential purposes. Positive effects were also underlined, especially when discussing technologies/processes connected to renewable energy production or local investment in high quality and typical products that respond to both market trends and EU rural development policies. Although the common general preference accorded to the three scenarios, the groups disagreed on many of the parameters they rated. This aspect shows the complexity of a real shared decision-making process. CSS seemed to be guided by a more

conservationist vision. The positive judgment of the Multifunctional agriculture scenario is supported by higher ratings for almost all the considered parameters compared with IS.. In spite of the importance attached to urban and territorial polices and the negative effects outlined, CSS maintained a positive vision of change, considering the Multifunctional agriculture scenario the most realistic. This seems to be more consistent with their *desiderata*, rather than with the discussion results on driving forces and their effects. On the other hand, even maintaining a strong criticism about the Housing sprawl scenario and doubts on the Wine-growing agriculture, IS recognized some local economic development opportunities in these trends. They showed a more pragmatic vision of the future too. According to the rating given to the driving forces and their directional effects overtime, they consider the Multifunctional agriculture scenario as extremely low likeliness compared with the Housing sprawl and the Intensive production. Nonetheless, both groups used 'landscape education', 'farmer quality of life', and 'correct planning strategies' as key phrases for driving the change processes to higher rural landscape quality. In agreement with Mauchline *et al*. (2012) IS understood better the aims of the policy and were more realistic, while CSS placed to appreciate its effective implementation having directly experienced the impacts of the intervention. Both groups provided feedback for future evaluations or policy rural modifications (Penker, 2009).

Conclusions

To conclude, making the move from the regional landscape planning strategy to the local one, experts can successfully guide the participatory process by helping local stakeholders and public administrators to communicate. In the case of candidate world heritage site MA, aside from some persistent result interpretation issues, policy makers can utilise focus group results with some caveats in mind. For example, according to results of other studies (Primdahl, 2010), we detected that CSS shared their opinions based on their own/family needs; they had difficulty re-sizing their thoughts to landscape scale. There was also a demonstrated need for more sensitivity to the

environmental consequences of driving forces, perhaps through educational efforts. Finally, we also detected that CSS considered future transformations to be more like desires than facts which has implications when prioritising planning efforts.

This paper shows that there are complex ecological, socio-cultural, and economical drivers affecting the future(s) of rural area studied. In this context the development and assessment of land use scenarios can play an important role in promoting the understanding of such complex and uncertain systems or policies.

Acknowledgments

We are grateful to all focus group participants for their essential contribution to the study. The authors thank the Turin Bank Foundation 'Fondazione CRT' and Asti Province for financing the research project. We also would like to thank reviewers and editors for the comments improving earlier drafts of this manuscript, and Leonard Editorial Services for the english revision.

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Figure captions

Figure 1 – Location of Monferrato Astigiano (MA) in Piedmont, Italy.

Figure 2 – Participants discussing driving forces and their effects.

Figure 3 – Examples used for describing scenarios: from the left Intensive Wine-growing Agriculture (A), Multifunctional Agriculture (B) and Housing Sprawl (C).

Figure 4 – Landscape scenarios visualization. From the top: *Status quo* (A), Intensive Wine-growing Agriculture (B), Multifunctional Agriculture (C), and Housing Sprawl (D).

Figure 5 – Assessment of the three scenarios (line graph showing sum of average ratings).

Figure 6 – Average ratings assigned to evaluation parameters by Institutional Stakeholders. Figure 7 – Average ratings assigned to evaluation parameters by Civil Society Stakeholders.